REMARKS/ARGUMENTS

This Amendment is being filed in response to the Office Action dated November 19, 2007. Reconsideration and allowance of the application in view of the amendments made above and the remarks to follow are respectfully requested.

Claims 1-18 are pending in the Application. Claims 1, 7 and 8 are independent claims. Claims 9-18 are added by this amendment.

Applicants thank the Examiner for acknowledging the claim for priority and receipt of certified copies of all the priority documents.

By means of the present amendment, claims 1, 4, 5, 7 and 8 are amended for better conformance to U.S. practice. By these amendments, claims 1, 4, 5, 7 and 8 are not amended to address issues of patentability and Applicants respectfully reserve all rights under the Doctrine of Equivalents.

In the Office Action, claim 8 is rejected under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter.

Applicants respectfully disagree with and explicitly traverse this ground for rejecting claim 8. It is the Applicants' position that the claim requires statutory subject matter. However, in the interest of furthering the prosecution of this matter, Applicants

have elected to amend the claims. Specifically, Applicants have amended claim 8 to state a computer program stored on a computer readable medium ... No new matter is added by this amendment nor should a further search be required. Clearly claim 8 requires statutory subject matter. Accordingly, it is respectfully requested that the amendment to the claim be entered and that the rejection of claim 8 be withdrawn.

Claims 1-5 and 7-8 are rejected under 35 U.S.C. §102(b) as allegedly anticipated by Liao et al. (Chia-Wei Liao and G. Medioni, Simultaneous Surface Approximation and Segmentation of Complex Objects, Computer Vision and Image Understanding, Volume 73, Issue 1, 1 January 1999, Pages 43-63 ("Lioa"). Claim 6 is rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Lioa in view of Weese et al. (Shape Constrained Deformable Models for 3D Medical Image Segmentation, Lecture Notes in Computer Science, Volume 2082/2001, Information Processing in Medical Imaging: 17th International Conference, IPMI 2001, Davis, CA, USA, June 18-22, 2001, Proceedings, J. Weese, M. Kaus, C. Lorenz, S. Lobregt, R. Truyen, and V. Pekar ("Weese").

It is respectfully submitted that claims 1-18 are allowable over Lioa alone and in view of Weese for at least the following reasons.

Lioa shows a method of surface approximation and segmentation of an object that includes cavities. Lioa treats objects by breaking an object into components wherein adjacent components of the object (note, <u>each are components of the same object</u>) are connected by a Bézier surface to connect components of the object smoothly (see, page 44, section 2.3.2, lines 1-5 cited in the Office Action). While Lioa does deform an initial surface to 3-D data points utilizing an attraction force around the data points to bring the initial surface closer to the 3-D data points as pointed out in the Office Action citing page 48, section 4.3, Lioa does not show "the first partial deformable surface model and the second partial deformable surface model <u>have a prescribed spatial relationship corresponding to a spatial relationship of the first object and the second object</u>" as recited in the claims prior to amendment herein. The claims are herein amended to clarify that "the first partial deformable surface model and the second partial deformable surface model <u>have a prescribed spatial relationship corresponding to distances between portions of the first object and</u>

portions of the second object" which is what was intended by the claims as originally presented, not simply that the shape of the components together define the shape of the object.

Put simply, Lioa teaches determining an outside smoothed boundary of the object and thereafter, utilizing data points that are not part of the outside boundary, to determine components that must be subtracted from the outside boundary to determine the shape of the object. While it is true that Lioa teaches utilizing Bézier surfaces to connect components of the object smoothly, this has little to do with the claims as presented.

It is respectfully submitted that the method of claim 1 is not anticipated or made obvious by the teachings of Lioa. For example, Lioa does not disclose or suggest, a method that amongst other patentable elements, comprises (illustrative emphasis provided) "the first partial deformable surface model and the second partial deformable surface model have a prescribed spatial relationship corresponding to distances between portions of the first object and portions of the second object; and adapting the first partial deformable model to the first surface and the second partial deformable model to the second surface, wherein the prescribed spatial relationship of the first partial deformable surface model
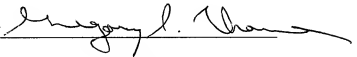
and the second partial deformable surface model is used for the adaptation" as recited in claim 1, and as substantially recited in each of claims 7 and 8. Weese is introduced for allegedly showing elements of a dependent claim and as such, does nothing to cure the deficiencies in Lioa.

Based on the foregoing, the Applicants respectfully submit that independent claims 1, 7 and 8 are patentable over Lioa alone and in view of Weese and notice to this effect is earnestly solicited. Claims 2-6 and 10-18 respectively depend from one of claims 1 and 8 and accordingly are allowable for at least this reason as well as for the separately patentable elements contained in each of the claims. Accordingly, separate consideration of each of the dependent claims is respectfully requested.

In addition, Applicants deny any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Applicants reserve the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

Applicants have made a diligent and sincere effort to place this application in condition for immediate allowance and notice to this effect is earnestly solicited.

Respectfully submitted,

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